

IRC-10  
IMC-2  
UPC-1

Log # 10-01 (for office use only)

**WASHINGTON STATE BUILDING CODE COUNCIL  
APPLICATION FOR REVIEW OF A PROPOSED STATEWIDE AMENDMENT  
TO THE WASHINGTON STATE BUILDING CODE**

**1. State Building Code to be Amended.**

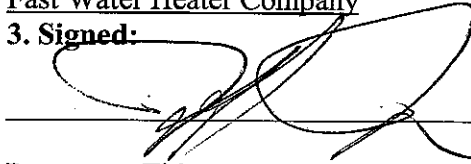
☐ International Building Code ☐ Ventilation and Indoor Air Quality Code  
☒ International Residential Code ☒ International Mechanical Code  
☐ ICC ANSI A117.1 Accessibility Code ☒ International Fuel Gas Code  
☐ International Fire Code ☐ NFPA 54 National Fuel Gas Code  
☒ Uniform Plumbing Code ☐ NFPA 58 Liquefied Petroleum Gas Code  
☐ State Energy Code

**Section** UPC508.14 **Page** 45 IRC G2408.2 IFGC 305.3 IMC 304.3

**2. Applicant:**

Fast Water Heater Company

**3. Signed:**



President 5/21/2009

Proponent Title Date

**4. Contact Person:**

Jeff Jordan

**Name Title**

**Address:** 12601 132 Ave NE

Kirkland, WA 98034

**Phone:** (425) 636-7058 **Fax:** (425) 636-7058

**RECEIVED**

**MAY 27 2009**

**SBCC**

**7. Proposed Code Amendment** (Underline all added words, strike through deleted words)  
Additional pages may be attached.

Code UPC Section 508.14 Page 45

Amend section to read as follows:

(1) Gas utilization equipment in residential garages and in adjacent spaces that open to the garage and are not part of the living space of a dwelling unit shall be installed so that all burners and burner-ignition devices are located not less than 18 inches (450 mm) above the floor unless listed as flammable vapor ignition resistant. [NFPA 54:9.1.10.1] Electric water heaters are not required to be elevated.

(2) Such equipment shall be located or protected so it is not subject to physical damage by a moving vehicle. [NFPA 54:9.1.10.2]

**Code IRC Section G2408.2**

**Gas** Equipment and appliances having an ignition source shall be elevated such that the source of ignition is not less than 18 inches (457 mm) above the floor in hazardous locations and public garages, private garages, repair garages, motor fuel-dispensing facilities and parking garages. For the purpose of this section, rooms or spaces that are not part of the living space of a dwelling unit and that communicate directly with a private garage through openings shall be considered to be part of the private garage.

Exception: Elevation of the ignition source is not required for electric water heaters and appliances that are listed as Flammable Vapor Ignition Resistant.

**Code - IFGC Section 305.3**

**Gas** Equipment and appliances having an ignition source shall be elevated such that the source of ignition is not less than 18 inches (457 mm) above the floor in hazardous locations and public garages, private garages, repair garages, motor fuel-dispensing facilities and parking garages. For the purpose of this section, rooms or spaces that are not part of the living space of a dwelling unit and that communicate directly with a private garage through openings shall be considered to be part of the private garage.

Exception: Elevation of the ignition source is not required for electric water heaters and appliances that are listed as Flammable Vapor Ignition Resistant.

**Code - IMC Section 304.3**

Heating and / or cooling equipment and water heaters covered by this code, located in a garage and which generate a glow, spark, or flame capable of igniting flammable vapors, shall be installed with the sources of ignition at least 18 inches (457 mm) above the floor level

**Exception.** Elevation of the ignition source is not required for electric water heaters and appliances that are listed as Flammable Vapor Ignition Resistant.

## 8. Background information on amendment.

**NOTE:** State-wide and emergency state-wide amendments to the state building code should be based on one of the following criteria:

- (1) The amendment is needed to address a critical life/safety need.
- (2) The amendment is needed to address a specific state policy or statute.
- (3) The amendment is needed for consistency with state or federal regulations.
- (4) The amendment is needed to address a unique character of the state.
- (5) The amendment corrects errors and omissions.**

The proposal I am making is to correct a conflict between the current adopted codes. RCW 19.27 provides the precedence of the codes in the event of a conflict. The UPC is last in order of precedence, which for the most part is not an issue as the corresponding chapters in the other codes were not adopted. However, the sections on elevating an appliance were adopted in the IRC, IMC, IFGC and the UPC.

The UPC states that gas equipment must be raised unless listed as FVIR  
Enforcement for inspectors who refer to this section:

1. FVIR gas – not required to be elevated.
2. Non FVIR gas – required to be elevated.
3. Electric – not required to be elevated.

Both the IRC and the IFGC state that equipment having an ignition source be raised. The definition of "ignition source" is "A flame, spark or hot surface capable of igniting flammable vapors or fumes. Such sources include appliance burners, burner ignitions and electrical switching devices." By definition, both the IRC and the IFGC would require that an electric water heater be elevated so the electrical switching device "thermostat" be 18" above the floor.

Enforcement for inspectors who refer to the IRC and IFGC:

1. FVIR gas – not required to be elevated.
2. Non FVIR gas – required to be elevated.
3. Electric –**required** to be elevated.

The IMC as it is written would require both electric and FVIR listed appliances to be elevated as it uses the general term "water heater" and does not provide an exception for FVIR listed appliances that are included in all the other codes.

The problem is that there is no consistency in the interpretation or enforcement of this code.

Enforcement for inspectors who refer to the IMC:

1. FVIR gas –**required** to be elevated.
2. Non FVIR gas – required to be elevated.
3. Electric –**required** to be elevated.

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### Economic Impact Worksheet

(Required for statewide amendment requests. Attach supporting documentation.)

Code References: UPC, IRC, IFGC, IMC Title: Elevation of ignition source  
Proponent: Jeff Jordan Phone: 425-636-7058 Date: 5-21-09

#### Part I ♦ Amendment Benefit:

PROBLEM(S) ADDRESSED: Conflicts between codes and variation in enforcement & interpretation

PRIMARY REASON FOR AMENDMENT: (check one only)

- ☒ Protect public health, safety and welfare ☐ Mandate from legislation or courts  
☒ Reduce cost ☐ Code change  
☒ "Manage risk" for government ☐ Other

TYPE OF BENEFITS PROJECTED: (check all that apply)

- ☒ Saves lives/reduces injuries ☐ Saves energy  
☐ Protects/improves long-term health ☐ Protects environment  
Reduces construction cost: ☐ Increases accessibility  
☒ Over existing code requirement ☐ Reduces regulation  
☐ Canceling new code requirement ☒ Reduces government enforcement cost  
☐ Off-setting new code requirement ☒ Clarifies/improves existing code  
☒ Increases construction alternatives ☐ Protects property loss/damage  
☐ Other

#### Part II ♦ Amendment Impacts:

TYPES OF CONSTRUCTION: ☒ New Construction ☒ Remodeling/Tenant Improvement/Repair

COMPLETE TABLE FOR EACH BUILDING TYPE CHECKED (See reverse for instruction on items <sup>a</sup> through <sup>e</sup>)

√	Building Type	Construction <sup>a</sup> 1st Cost		Enforcement <sup>b</sup>		Owner <sup>c</sup> Ongoing		Other		Supporting data attached
✓	Residential	C/S <sup>d</sup>	Degree <sup>e</sup>	C/S <sup>d</sup>	Degree <sup>e</sup>	C/S <sup>d</sup>	Degree <sup>e</sup>	C/S <sup>d</sup>	Degree <sup>e</sup>	✓
✓	Single family	200	2	-100	1	0	0			
✓	Multi-family	200	2	-100	1	0	0			
	Commercial/Retail									
	Industrial									
	Government/Utilities									
	Other:									

#### OTHER EFFECTS:

Evaluate by number scale 0-3 (0=none, 3=significant)

- 2 Likelihood for litigation  
0 Decrease public cooperation  
0 Disadvantage small business  
Other

Evaluate by letter code

(Spec, Custom, Factory, Remodel, Manufact., Other, NA)

- NA Advantage one industry  
NA Disadvantage one industry

#### Part III ♦ Comments and Recommendations:

Evaluate each by number scale 0-3 (0=none, 3=significant)

- 3 Difficulty to Enforce 3 Cost of not adopting amendment  
3 Costs exceed Benefits 0 Degree of TAG controversy  
3 C/S Confidence level

Evaluate Yes or No (circle one)

- Y (N) Were alternative solutions considered  
(Y) / N Recommend further benefit/impact analysis  
(Y) / N Recommend future benefit/impact review